

REMARKS


The specification has been amended to correct typographical and other minor errors of a formal nature. No new matter has been added.

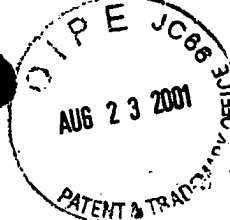
Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned "Version with markings to show changes made."

Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the specification:

Paragraph beginning at line 7 of page 4 has been amended as follows:

[In] U.S. Pat. Nos. 5,592,490 to Barratt et al., 5,828,658 to Ottersten et al., and 5,642,353 Roy III, teach about spectrally efficient high capacity wireless communication systems using multiple antennas at the transmitter; here a Base Transceiver Station (BTS) for Space Division Multiple Access (SDMA). In these systems the users or receive units have to be sufficiently separated in space and the BTS uses its transmit antennas to form a beam directed towards each receive unit. The transmitter needs to know the channel state information such as "spatial signatures" prior to transmission in order to form the beams correctly. In this case spatial multiplexing means that data streams are transmitted simultaneously to multiple users who are sufficiently spatially separated.

Paragraph beginning at line 19 of page 12 has been amended as follows:

BTS **12** has an antenna array **16** consisting of a number of transmit antennas **18A, 18B, ..., 18M**. Receive units **14** are equipped with antenna arrays **20** of N receive antennas (for details see Figs. 2, 4). BTS **12** sends transmit signals TS to all receive units **14** via channels **22A** and **22B**. For simplicity, only channels [**20A, 20B**] **22A, 22B** between BTS **12** and receive units **14A, 14B** are indicated, although BTS **12** transmits TS signals to all units shown. In this particular case receive units **14A, 14B** are both located within one cell **24**. However, under suitable channel conditions BTS **12** can transmit TS signals to units outside cell **24**, as is known in the art.